HISTORIC PROPERTY INVENTORY FORM

State of Washington, Department of Community Development
Office of Archaeology and Historic Preservation
111 21st Avenue Southwest, Post Office Box 48343
Olympia, Washington 98504-8343 (206)753-4011

INDENTIFICATION SECTION

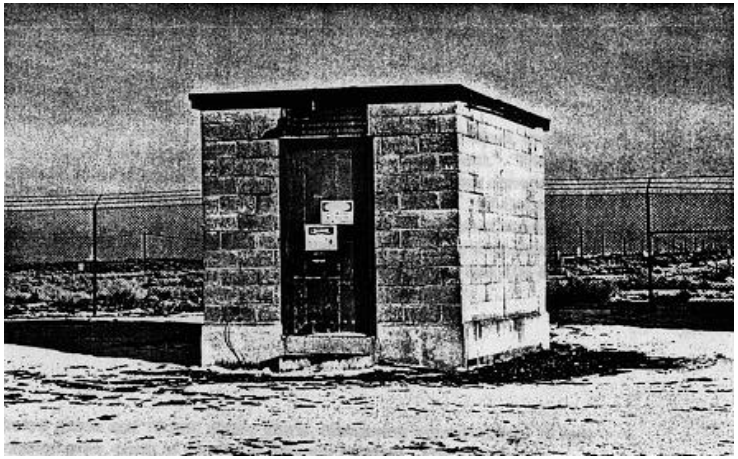
Field Site No. 104-B-1 **OAHP No.** _____ **Date Recorded** 14-Feb-96
Site Name Historic 104-B-1 Tritium Vault
Common _____
Field Recorder T. E. Marceau
Owner's Name Department of Energy, Richland Operations Office
Address P.O. Box 550
City/State/Zip Code Richland, WA 99352

LOCATION SECTION

Address 100-BC-1 Area
City/Town/County/Zip Code Richland, WA/Benton County/99352
Twp. 13N **Range** 25E **Section** 11 **l/4 Section** _____ **1/4 1/4 Sec** _____
Tax No./Parcel No. _____ **Acreage** _____
Quadrangle or map name Riverland, 7.5 min series
UTM References Zone 11 **Easting** 297377 **Northing** 5167602
Plat/Block/Lot _____
Supplemental Map(s) _____

Status
- [X] Survey/Inventory
- [ ] National Register
- [ ] State Register
- [ ] Determined Eligible
- [ ] Determined Not Eligible
- [ ] Other (HABS, HAER, NHL)
- [ ] Local Designation

Photography
Photography Neg. No. _____
(Roll No. & Frame No.)
View of West Elevation
Date Dec-94



Classification [ ] District [ ] Site [ ] Building [X] Structure [ ] Object
Distric Status [ ] NR [ ] SR [ ] LR [ ] INV
Contributing [ ] **Non-Contributing** [ ]
District/Thematic Nomination Name _____

Description Section
Materials & Features/Structural Types
Building Type Industry
Plan Rectangular
Structural System Concrete Block
No. of Stories 1

Roof Type
- [ ] Gable
- [X] Flat
- [ ] Monitor
- [ ] Gambrel
- [ ] Shed
- [ ] Hip
- [ ] Pyramidal
- [ ] Other (specify) _____

Cladding (exterior Wall Surfaces
- [ ] Log
- [ ] Horizontal Wood Siding
  - Rustic/Drop [ ]
  - Clapboard [ ]
- [ ] Wood Shingle
- [ ] Board and Batten
- [ ] Vertical Board
- [ ] Asbestos/Asphalt
- [ ] Brick
- [ ] Stone
- [ ] Stucco
- [ ] Terra Cotta
- [X] Concrete/Concrete Block
- [ ] Vinyl/Aluminum Siding
- [ ] Metal (specify) _____
- [ ] Other (specify) _____

Roof Material
- [ ] Wood Shingle
- [ ] Wood Shake
- [ ] Composition
- [ ] Slate
- [X] Tar/Built-up
- [ ] Tile
- [ ] Metal (specify) _____
- [ ] Other (specify) _____
- [ ] Not visible

Foundation
- [ ] Log
- [ ] Post & Pier
- [ ] Stone
- [ ] Brick
- [ ] Not visible
- Concrete
  - [ ] Block
  - [X] Poured
  - [ ] Other (specify) _____

High Styles/Forms (Check one or more of the following)

[ ] Greek Revival	[ ] Spanish Colonial Revival/Mediterranean
[ ] Gothic Revival	[ ] Tudor Revival
[ ] Italianate	[ ] Craftsman/Arts & Crafts
[ ] Second Empire	[ ] Bungalow
[ ] Romanesque Revival	[ ] Prairie Style
[ ] Stick Style	[ ] Art Deco/Art Moderne
[ ] Queen Anne	[ ] Rustic Style
[ ] Shingle Style	[ ] International Style
[ ] Colonial Revival	[ ] Northwest Style
[ ] Beaux Arts/Neoclassical	[ ] Commercial Vernacular
[ ] Chicago/Commercial Style	[ ] Residential Vernacular (see below)
[ ] American Foursquare	[X] Other (specify)
[ ] Mission Revival	Industrial Vernacular

Vernacular House Types

[ ] Gable Front	[ ] Cross Gable
[ ] Gable Front and Wing	[ ] Pyramidal/Hipped
[ ] Side Gable	[ ] Other (specify) _____

Integrity (Include detailed description in **Description of Physical Appearance**)

	Intact	Slight	Moderate	Extensive
Changes to plan	[X]	[ ]	[ ]	[ ]
Changes to windows	[ ]	[ ]	[ ]	[ ]
Changes to original cladding	[X]	[ ]	[ ]	[ ]
Changes to interior	[ ]	[ ]	[ ]	[ ]
Other (specify)	[ ]	[ ]	[ ]	[ ]

NARRATIVE SECTION

Study Unit Themes (check one or more of the following)

	Agriculture		Conservation		
	Architecture/Landscape Architecture		Education		
	Arts		Entertainment/Recreation		
	Commerce		Ethnic Heritage (specify)		
	Communications		Health/Medicine		
	Community Planning/Development		Manufacturing/Industry		X
			Military		X

Statement of Significance

Date of Construction 1949? Architect/Engineer/Builder General Electric Hanford Company/U.S. Atomic Energy Comr

X	In the opinion of the surveyor, this property appears to meet the criteria of the National Register of Historic Places.
	In the opinion of the surveyor, this property is located in a potential historic district (National and/or local).

A pilot program for the separation and production of tritium was housed in the retrofitted 108-B Chemical Pump House. This project, code named the P-10 Plug Extraction Project, ran from Gerber notes that "tritium gas was to be a key component in hydrogen (thermonuclear or "Super") weapons then under top secret development." The tritium used in the first hydrogen bo Grounds on October 31, 1952, was produced at 108-B. The P-10 program was short-lived at Hanford, as Gerber observes, "the entire project seemed poised for growth when the tritium m Savannah River Plant in 1952". The 108-B Building was demolished in 1984. 104-B-1 was used to store tritium recovered from irradiated lithium-aluminum target elements. It functioned This property is not associated with an important person (Criterion B), does not possess any distinctive architectural features or methods of construction (Criterion C), and does not qualify source of important information. However, 104-B-1 qualifies under Criterion A due to its association with the Cold War production of tritium. Therefore, it is the conclusion of the U.S. Dep eligible for inclusion on the National Register of Historic Places as a contributing property within the Hanford Site Historic District.

Description of Physical Appearance

The 104-B-1 Tritium Vault is a concrete block structure supported on a reinforced concrete foundation. It is 10 feet below grade and 10 feet above grade, measuring approximately 10 fe total area of approximately 130 square feet. The Tritium Vault is located in the 100-B exclusion area, north of the 105-B Reactor building. The structure is presently sealed and no entry tritium contamination.

Major Bibliographic References

Cote, Susan L., n.d., Hanford Buildings and Facilities 100 Areas, UNI-2780
Couto, M.M., J.H. Dunkirk, R.J. Landon, F.E. Meyer, 1994, "Pre-Existing" Conditions Survey of Hanford Site Facilities by Bechtel Hanford, Inc., BHI-00221, Rev.
Gerber, Michele S., 1993, Summary of 100-B/C Reactor Operations and Resultant Wastes, Hanford Site, WHC-SD-EN-RPT-004, Rev. 0
Hanford Site Drawing: H-1-1755
Reed, George G., Jr., 1952, History of the P-10 Project as of February 1, 1951 (Declassified with Deletions)
Wahlen, R.K., 1989, History of 100-B Area, WHC-EP-0273

Politics/Government/Law
Religion
Science & Engineering
Social Movements/Organizations
Transportation
Other (specify) Cold War Era

Study Unit Sub-Theme(s) (specify)
Chemical Separation/Byproduct (Tritium)

nission

ction Project, ran from February 1949 to March 1952.
n the first hydrogen bomb tested at the Pacific Proving
wth when the tritium mission was transferred to the new
ements. It functioned as an interim storage facility.
and does not qualify under Criterion D as the principal
lusion of the U.S. Department of Energy that 104-B-1 is

g approximately 10 feet wide by 13 feet long with a
r sealed and no entry is permitted due to low-level

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